**Mazza M, Mazza O, et al. Escitalopram 20 mg versus duloxetine 60 mg for the treatment of chronic low back pain. Expert Opin Pharmacother 2010;11(7):1049-1052.**

Design: Randomized clinical trial

Brief summary of results:

- 80 patients (45 women, 35 men, mean age 53) completed a randomized clinical trial comparing escitalopram with duloxetine for treatment of chronic low back pain
- Eligible patients had non-radicular low back pain for at least 6 months, with an average intensity of at least 4 on a scale from 0-10
- Exclusion criteria were evidence of radicular compression or spinal stenosis, any low back surgery in the past 12 months, any invasive back procedure in the past month, or a diagnosis of major depression
- Regular use of antidepressants, anticonvulsants, opioids, analgesics, acupuncture, chiropractic manipulation, or other procedures to reduce pain, were prohibited during the study; a washout period of 2 weeks was done prior to patients beginning the study treatments
- 85 patients were randomized to escitalopram (n=41) or duloxetine (n=44); 5 patients failed to complete the study (2 escitalopram, 3 duloxetine)
- Doses of both drugs were titrated from starting dose: for escitalopram the starting dose was 5 mg/d, for 3 days, then 10 mg for one week, then 20 mg/d for the rest of the study
- For duloxetine, the starting dose was 30 mg/d for one week, then up to 60 mg/d for the rest of the study
- Main outcome measure was reduction in weekly mean pain scores from baseline to the end of the study
- The mean change in the escitalopram group for average pain score was -2.3 (standard error=0.33); for duloxetine, the change was -2.45 (standard error=0.30); there was no difference between the two groups in pain reduction
- There was also no difference between groups on the proportion with 50% pain reduction (proportions not reported)
- Adverse effects were equal between groups; about 10% had dry mouth, which was the commonest side effect; 3 patients in each group reported insomnia

Authors' conclusions:

- Both escitalopram and duloxetine significantly improve low back pain between baseline and week 13
- Limitations include lack of a placebo group and a lack of blinding; a double-blind, placebo-controlled study would be needed to confirm the findings of this study

Comments:

- In addition to lack of blinding, the randomization method is not described, and concealment of allocation cannot be assumed

- The significance of the improvement in pain scores is not reported, but can be inferred from the size of the change scores and their standard errors
- Although both groups had equal proportions of patients with a 50% improvement in pain, these proportions are not reported, and this measure of treatment effectiveness cannot be estimated from the data
- A misprint in the eligibility section states that the patients had to have pain for less than or equal to 6 months with an intensity less than or equal to 4; clearly the criteria called for the pain to be at least that long and at least that intense
- While suggestive that both escitalopram and duloxetine improve low back pain, the lack of placebo control, lack of blinding, and unclear method of randomization make the study inconclusive

Assessment: Inadequate for evidence of effectiveness of escitalopram or duloxetine in comparison with placebo